

# **PHARMACISTS AND STUDENT PHARMACISTS INVOLVEMENT IN DRUG ABUSE ISSUES**

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# (Outline of Presentation...)

Background of project/purpose and what we hope to achieve

- Drug use in healthcare students compared to all college students

College/School of Pharmacy internal discussion on issue

Extrapolation of this study to nursing/medical schools

Pharmacy student perspective

- Stressors, competition, knowledge of medications, ease of access

Methods and design of research

Tentative results/trends and feedback received

- Comparative data with trends and demographics

Authors conclusions and future of drug screening

# RESEARCH CONTRIBUTORS

## **Purdue University College of Pharmacy**

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## **Pacific University School of Pharmacy**

- Jeremy Hughes, PharmD, Assistant Dean for Student Affairs and Assistant Professor
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# OBJECTIVES

- Describe drug diversion and addiction among pharmacy students
- Identify pros and cons of drug screening students
- Assess Purdue University research and results

# RESEARCH BACKGROUND

## Purpose/objective of research

- Research is lacking on this subject and
- Researchers have suggested student substance abuse prevention, assistance, and education be proactively addressed by colleges and schools of pharmacy (<https://www.ncbi.nlm.nih.gov/pubmed/21302181>)

## Who does this research impact?

- School administrators
- Students
- Experiential site preceptors
- Patients
- Law enforcement

# RESEARCH BACKGROUND

What we hope to achieve/goals:

- Protect the integrity of the profession
- Prevent student substance use/addiction
- Research has demonstrated several occupational risks for substance use disorders among pharmacists:
  - Increased access to prescription drugs
  - Stressful work environment
  - Lack of education regarding addiction
  - Lack of support for individuals seeking treatment  
(<http://www.ncbi.nlm.nih.gov/pubmed/22825228>)

# DRUG USE IN HEALTHCARE STUDENTS

Research reports substance use among pharmacy students to be associated with:

- Blackouts (18.2%)
- Attending class or work under the influence (7.8%)
- Providing patient care while under the influence (1.4%)
- Lowered grades or job evaluations (5.8%)
- Legal charges (2.7%)
- (<https://www.ncbi.nlm.nih.gov/pubmed/21302181>)

# DRUG USE IN HEALTHCARE STUDENTS

Pharmacy students self-report substantial recreational drug use

- marijuana (5.9%–28%)
- amphetamines (1.2%–6.8%)
- cocaine (0.5%–13%)
- sedatives (3%–9%)
- opioids (0.7%–5.1%) (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2779636/>).

Medical students report recent substance use (within last 30 days)

- alcohol (87.5%)
- marijuana (10%)
- cocaine (2.8%)
- tranquilizers (2.3%)
- opiates (1.1%)



# EXTRAPOLATION OF RESEARCH DATA

- Potential cross-functional benefits for medical and nursing schools
- Address risks/concerns with this population to help solve the problem
- Past year recreational drug use is reported by 9.4% of health care students
  - Allied health 8.4%, dental 10.2%, medicine 12%, nursing 8.6%, pharmacy 8.9% (<http://www.ncbi.nlm.nih.gov/pubmed/17135178>)

# PHARMACY STUDENT PERSPECTIVE

Potential for inappropriate substance use due to:

- Competition
  - Acceptance into pharmacy school, internships, job/post grad training placement, etc.
- Stressors
  - Long work/study hours, heavy course load, peer pressure, etc.
- Knowledge of medications
  - Effects, time stays in system, t<sub>1/2</sub> of drugs, school policy specifics

# PHARMACY STUDENT PERSPECTIVE

- High rates of drug abuse among college students is attributed to stress, curiosity, peer pressure, and heavy course loads  
(<https://www.addictioncenter.com/college/>)
- In 2013, the rate of current illicit drug use was 22.3% percent among full-time college students aged 18 to 22  
(<http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf>)

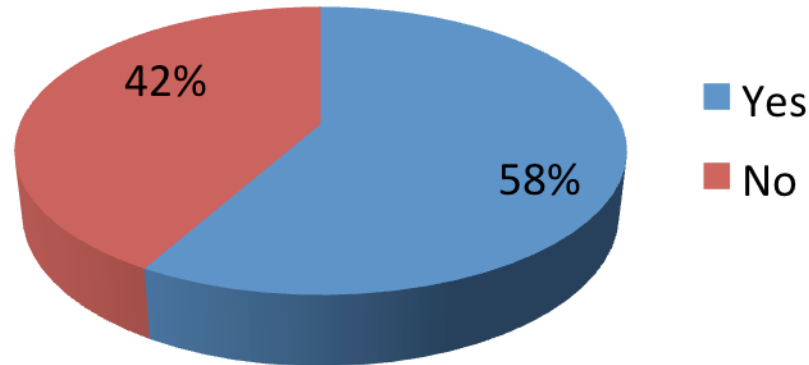
# PURDUE UNIVERSITY RESEARCH

- Pharmacy students and faculty developed and designed a survey to gather data on drug screening/testing policies and procedures, and inappropriate substance use at colleges/schools of pharmacy
- Survey administered to 135 programs
  - 129 ACPE accredited
  - 6 ACPE candidate status
- Web-based and paper surveys were sent to professional program deans, experiential learning, and student services/affairs personnel

# STUDY RESULTS

- 73% survey response rate
  - 98 out of 135 programs participated

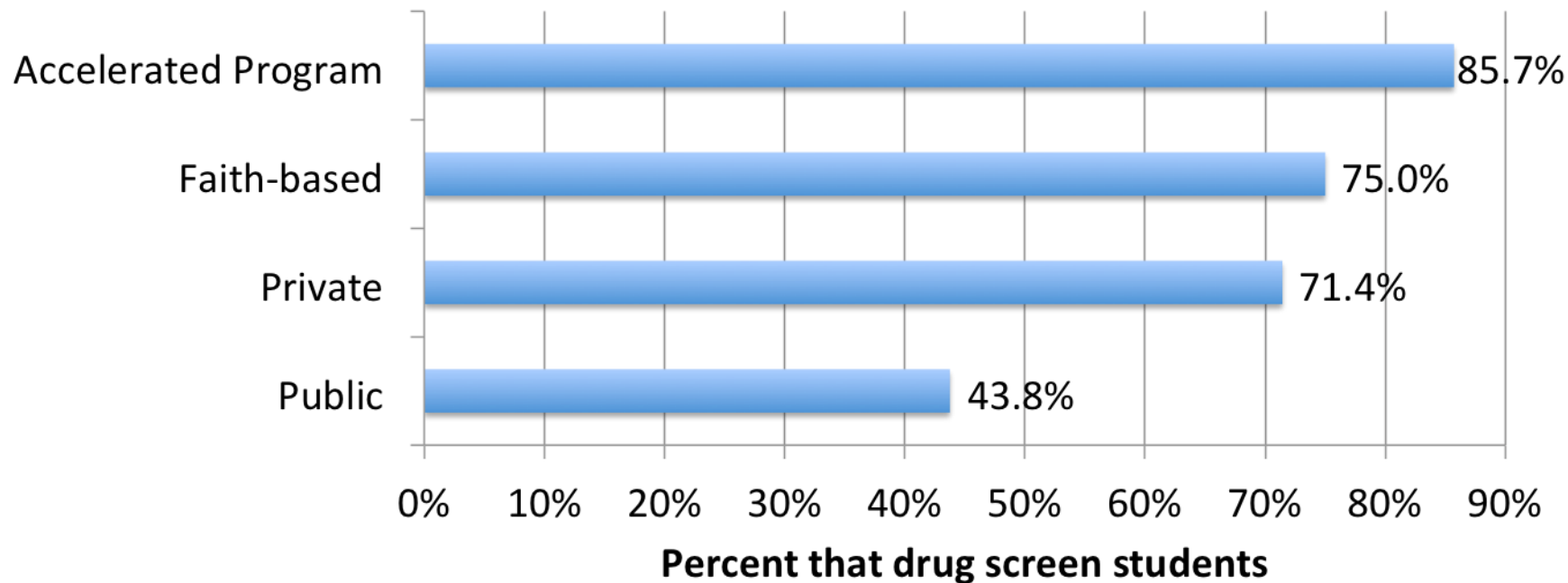
**Schools with Drug Screening Program**



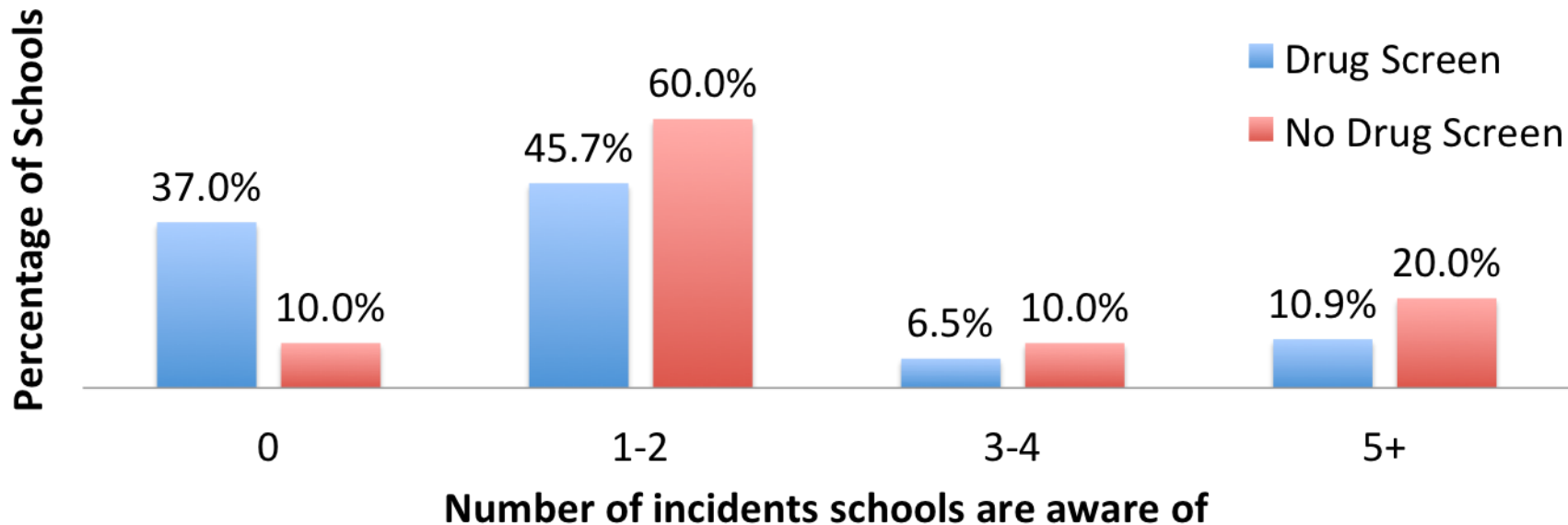
# REGIONAL DEMOGRAPHIC

- Drug screening% by region
- Map of US
  - Prevalence

# COMPARISON OF PROGRAM TYPES



# COMPARISON OF SUBSTANCE USE INCIDENTS

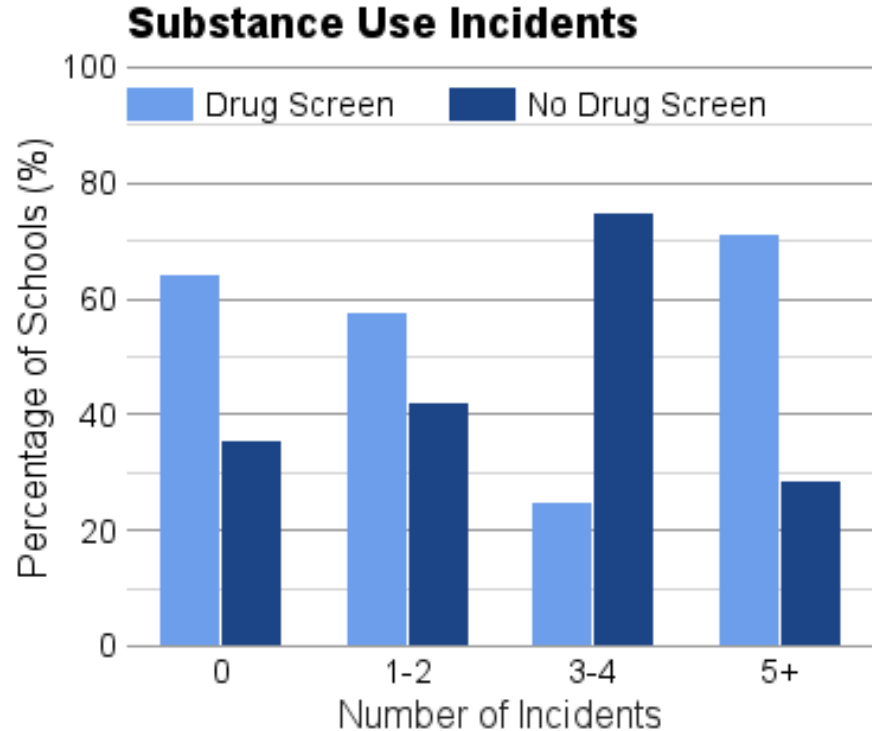


- More programs that perform drug screens report 0 student substance use incidents per year

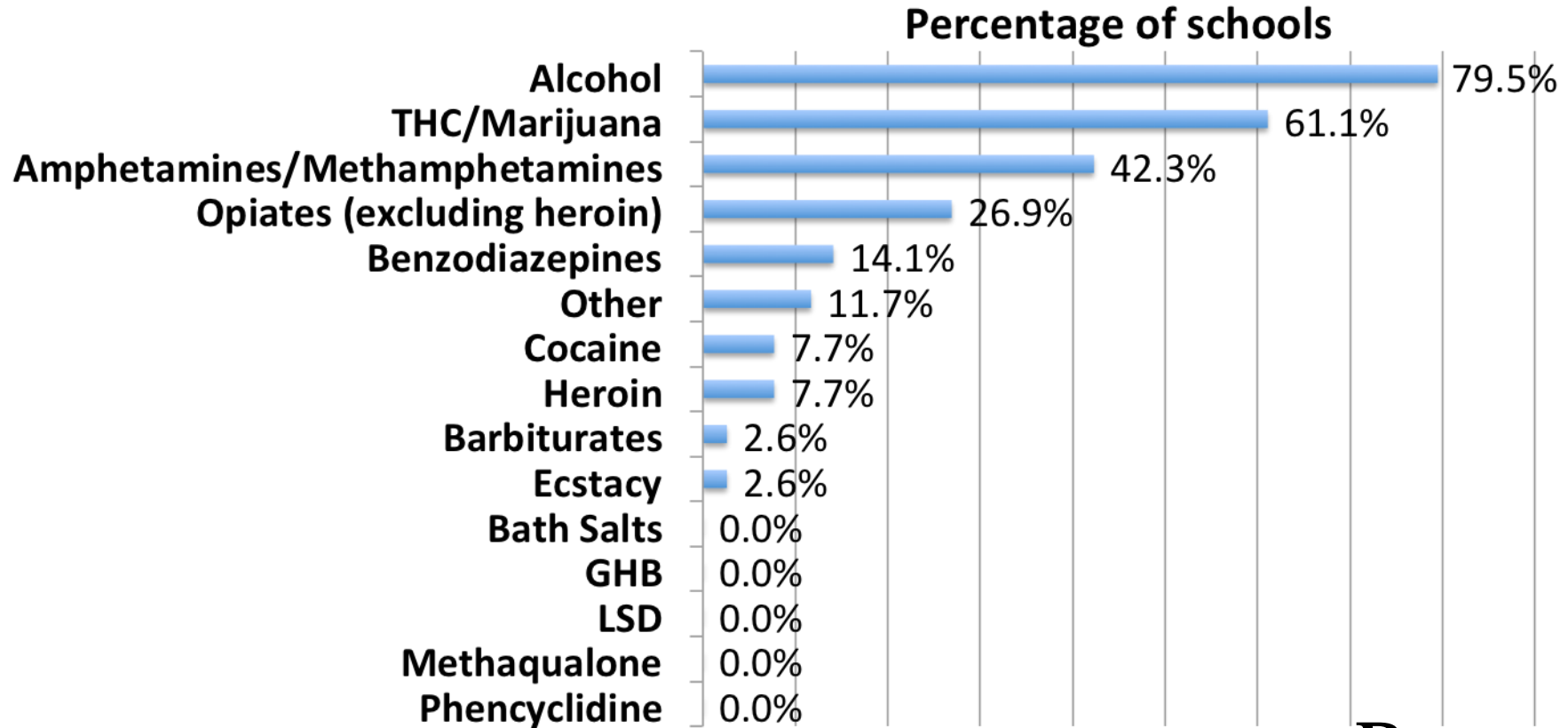


# COMPARISON OF SUBSTANCE USE INCIDENTS

- Programs that perform drug screens also are aware of more total substance use incidents per year
- Drug screening could allow for substance use incidents to be both prevented and recognized to provide proper treatment



# SUBSTANCES USED



# DRUG SCREEN OR NOT

Compare substance use data:

- Average incidents of screening schools vs. non
- Average incidents by demographic (rural, urban, etc)

# STUDY TRENDS

- Majority of preceptors/sites not aware of student problems → at risk for student drug abuse at site and/or improper patient care
  - Notified of positive drug screen? Preceptors only 13%

# SUBSTANCE USE PREVENTION

"In some situations, students need a reason to say **"no"** and this gives them that reason. It also tells students that this issue is important to us."

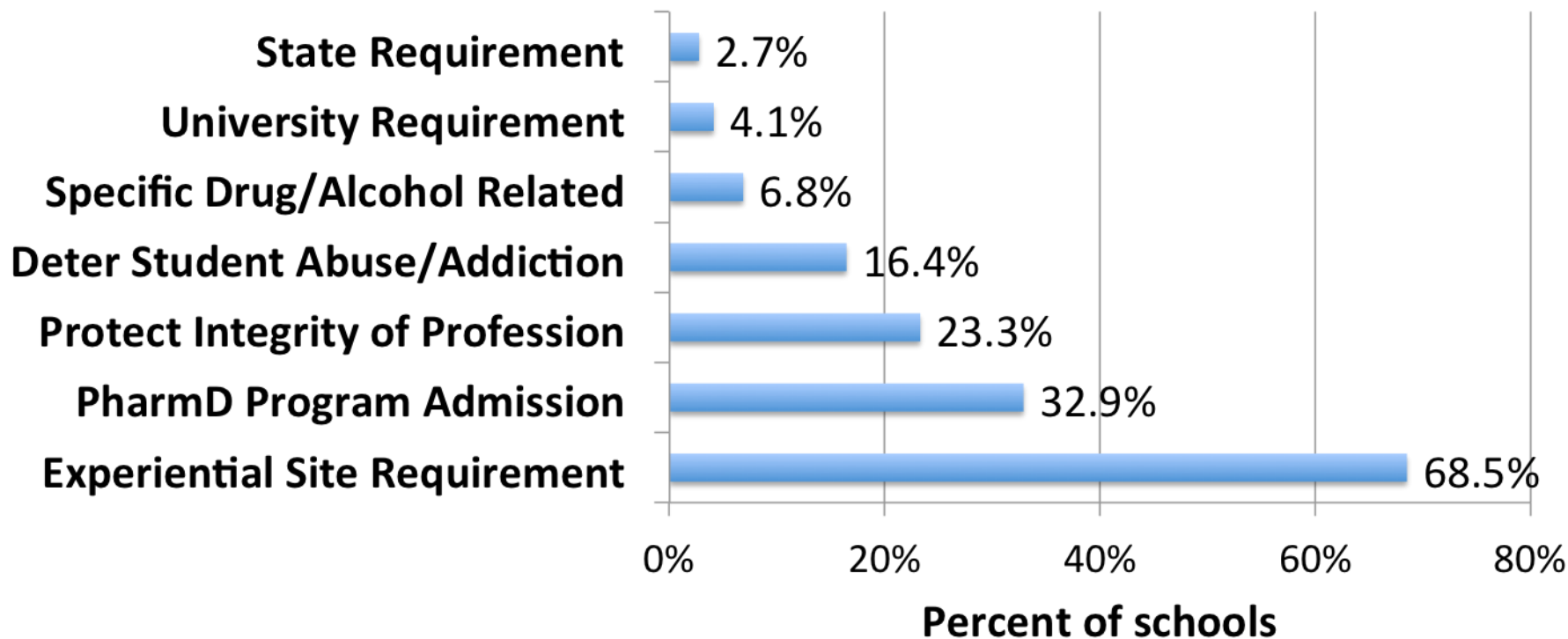
**"I would say yes and no.** Students who have a substance use disorder (addiction) will likely find it difficult to abstain in spite of potential consequences (which is what defines addiction). Students who do not have the disease of addiction and use occasionally are more likely to abstain."

"Students will be less likely to use if they know they can be screened at any time. Non-random screens are **highly ineffective** in detecting use."

# SUBSTANCE USE PREVENTION

- Administrators have mixed views on whether drug screening would deter students from inappropriate substance use
- “Only if it is truly random, frequent, comprehensive, and conducted in a quality manner.”
- “It is more effective at preventing students from starting, however, it is less effective for those who are already abusing them.”
- “Screening reinforces the seriousness of the college's substance abuse policies. Some students are not deterred, but some are, and it is worth the effort to deter those students.”
- Percent of yes and no

# INITIAL MOTIVATION FOR DRUG SCREENING



# Authors' Conclusions

What does the data imply...

What is the future of drug screening/deterrence methods...